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**Health Services Cost Review Commission**

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To: Hospital CFOs  
Cc: Case Mix Liaisons, Hospital Quality Contacts  
From: Laura Mandel, MPH, Chief – Population Health  
Date: September 20, 2019  
Re: Release of Avoidable Admissions Report; Reminder of Updates to PAU for RY2021

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This memo notifies users of the “Avoidable Admissions Report”, a new regulatory report now available on the CRISP Reporting Services (CRS) Portal to track and monitor Potentially Avoidable Utilization. The memo also reminds users of potential changes to the RY2021 Potentially Avoidable Utilization Savings Program measurement that were noted in an earlier memo. The potential changes detailed in this memo are subject to Commission approval in 2020 (RY2021).

**Per Capita PQI/PDI utilization**

For RY2021, HSCRC staff intends to recommend a shift to per capita PQI measurement (instead of revenue-based measurement) and to add avoidable pediatric admissions as measured by the AHRQ pediatric quality indicators (PDIs) (See Appendix A for details on the PQI and PDI measures). Based on discussions with Performance Measurement Work Group, HSCRC plans to use a methodology for attributing PQIs to hospitals that incorporates the Medicare Performance Adjustment (MPA) attribution process for applicable Medicare beneficiaries, followed by a geographic attribution approach for other patients<sup>1</sup>. PQI and PDI admissions will be flagged regardless of whether the admission is also a readmission (i.e., if both a PQI and a readmission, then the discharge will count as PQI).

**Avoidable Admissions Report**

As part of the change to per capita, CRISP is implementing a Tableau dashboard to help hospitals monitor PQIs and PDIs. HSCRC plans to update the reports to include risk-adjustment and other refinements to the methodology as available. Staff has developed some initial filters to help hospitals understand the demographics of

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<sup>1</sup> It should be noted that due to the differences in how population is counted (i.e., member months versus whole people), the totals for the MPA attributed population vary from the per capita PAU reports. This issue will be reexamined as the HSCRC implements the risk-adjustment.

attributed PQIs and PDIs, as case-level data on patients seen at other hospitals may not be able to be shared on an all-payer basis. Users should let HSCRC and CRISP know about additional drill downs that may be useful by contacting [Grace.Kaeding@crisphealth.org](mailto:Grace.Kaeding@crisphealth.org).

To help orient users to the new report, CRISP will be hosting a webinar on the Avoidable Admission Report September 24, 2019 from 2:30-4:30pm. To register in advance for this meeting, please use the following link:

<https://crisphealth.zoom.us/join/932949066c5f703a7510d14dfea9e911>

The report released in September 2019 will use AHRQ PQI and PDI version 2018, but will be updated in later months with AHRQ PQI and PDI version 2019.

### **Readmissions**

Staff plans to propose continuing to use the estimated costs of sending readmissions as the readmission metric in PAU Savings for RY2021. This methodology was adopted last year for the RY2020 PAU Savings Policy. To calculate the readmission revenue associated with the sending hospital, the methodology will multiply the average cost of an intra-hospital readmission (i.e., cost of readmissions that occurred to and from the same hospital) by the total number of sending readmissions assigned to each hospital. Applying this average cost avoids holding sending hospitals accountable for the cost structure at a receiving hospital. This approach was reviewed with the Performance Measurement Workgroup. Reporting on the sending readmissions and estimated costs of sending readmission will be available in new summary reports released in coming months.

### **Detail-Level Reports**

HSCRC plans on continuing to produce hospital specific patient-level reports for PAU (also known as detail-level files). This will be similar to prior years reporting and is intended to ensure hospitals can monitor and validate their results and perform analyses for patients seen at their hospital. **These reports on only patients seen at your hospital should not be used to estimate performance for the purposes of PAU Savings.** HSCRC anticipates continuing to produce monthly PAU detail-level files as preliminary case-mix data becomes available for hospital monitoring and validation. *HSCRC is considering streamlining the detail-level files to better reflect anticipated use and reduce confusion. For example, HSCRC may delete the variables referring to receiving readmissions as they are no longer used in calculating hospital performance in PAU Savings. Please see Appendix B for data dictionary.*

### **Summary Reports**

Over the next few months, HSCRC plans to produce static PAU reports based on the per capita PQI/PDI measures and readmissions that hospitals can use to monitor progress and performance over time. HSCRC plans to update the reports to include risk-adjustment and other refinements to the methodology as available. *To minimize the number of reports in the CRS portal and reduce confusion, HSCRC plans to discontinue production of the existing PAU Summary Reports.*

## **Future Data**

HSCRC and CRISP are working to link PQI data flags with Medicare data available in CCLF Medicare Analytics and Data Engine (MADE). This linkage will enable hospitals to view detail-level information on their MPA-attributed population, subject to the MPA data sharing provisions. Again, detail level data on non-Medicare patients seen at other hospitals cannot be shared, but staff can work with hospitals over time to develop drill down reports on the types of patients with avoidable admissions.

If you have any questions, please email [hscrc.quality@maryland.gov](mailto:hscrc.quality@maryland.gov) or call Laura Mandel (410-764-2594).

## Appendix A. Prevention Quality Indicator (PQI) and Pediatric Disease Indicator (PDI) Measures used in Avoidable Admissions Report

Variable in Report	Measure	AHRQ Description: numerator
Overall Composite	PQI 90 Prevention Quality Overall Composite	Prevention Quality Indicators (PQI) overall composite, ages 18 years and older. Includes admissions for one of the following conditions: diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, dehydration, community-acquired pneumonia, or urinary tract infection. Note: PQI v2019 no longer includes dehydration.
Diabetes Composite	PQI 93 Prevention Quality Diabetes Composite	Prevention Quality Indicators (PQI) composite of diabetes admissions, ages 18 years and older. Includes admissions for one of the following conditions: diabetes with short-term complications (PQI 1), diabetes with long-term complications (PQI 3), uncontrolled diabetes without complications (PQI 14), diabetes with lower-extremity amputation (PQI 16).
Acute Composite	PQI 91 Prevention Quality Acute Composite	Prevention Quality Indicators (PQI) composite of acute conditions, ages 18 years and older. Includes admissions with a principal diagnosis of one of the following conditions: dehydration (PQI 10), community-acquired pneumonia (PQI11), or urinary tract infection (PQI12).
COPD/ Asthma	COMBINED: PQI 05 Chronic Obstructive Pulmonary Disease Older adults + PQI 15 Asthma Younger Adults	Admissions with a principal diagnosis of chronic obstructive pulmonary disease (COPD) or asthma, ages 40 years and older.  Admissions for a principal diagnosis of asthma, ages 18 to 39 years. Excludes admissions with an indication of cystic fibrosis or anomalies of the respiratory system.
Hypertension	PQI 07 Hypertension	Admissions with a principal diagnosis of hypertension, ages 18 years and older. Excludes kidney disease combined with dialysis access procedure admissions, cardiac procedure admissions.
Congestive Heart Failure	PQI 08 Heart Failure	Admissions with a principal diagnosis of heart failure per, ages 18 years and older. Excludes cardiac procedure admissions.
Pediatric Asthma	PDI 14 Asthma Admission rate	Admissions with a principal diagnosis of asthma, ages 2 through 17 years <i>CRISP report uses ages 0 through 17, due to the availability of ACS Census age groups.</i> Excludes cases with a diagnosis code for cystic fibrosis and anomalies of the respiratory system.
Pediatric diabetes	PDI 15 Diabetes Short-term complications admission rate	Admissions for a principal diagnosis of diabetes with short-term complications (ketoacidosis, hyperosmolarity, or coma), ages 6 through 17 years. <i>CRISP report uses ages 5 through 17.</i>
Acute Pediatric	PDI 16 Gastroenteritis admission rate + PDI 18 Urinary Tract Infection Admission rate	Discharges with a principal diagnosis of gastroenteritis, or with a principal diagnosis of dehydration with a secondary diagnosis of gastroenteritis, age 3 months to 17 years. Excludes cases with gastrointestinal abnormalities or bacterial gastroenteritis. <i>CRISP report uses ages 0 through 17.</i>  Admissions with a principal diagnosis of urinary tract infection, ages 3 months to 17 years. Excludes cases with kidney or urinary tract disorders, cases with a high- or intermediate risk immunocompromised state (including hepatic failure and transplants). <i>CRISP report uses ages 0 through 17.</i>

All PQIs exclude Obstetric admissions (except for PQI 09) and transfers from a different hospital, another health care facility, skilled nursing facility, or intermediate care facility. For more detailed specifications, see [https://www.qualityindicators.ahrq.gov/Modules/PQI\\_TechSpec\\_ICD10\\_v2018.aspx](https://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec_ICD10_v2018.aspx) and [https://www.qualityindicators.ahrq.gov/Modules/PDI\\_TechSpec\\_ICD10\\_v2018.aspx](https://www.qualityindicators.ahrq.gov/Modules/PDI_TechSpec_ICD10_v2018.aspx)

## Appendix B. PAU Detail Level Files Data Dictionary

VARIABLE NAME	VARIABLE DESCRIPTION	VARIABLE VALUES
Hospital ID	Hospital ID Number	Number
Hospital Name	Hospital Name	Nominal
Medical Record Number	Medical record number	Number
Admission Date	Date of Admission	Date
Discharge Date	Date of Discharge	Date
Patient Account Number	Patient Account Number	Number
Data Type	Inpatient or Outpatient	IP= Inpatient, OP= Outpatient (OP indicates Observation stays greater than 23 hours)
Age (years)	Patient Years of Age at the time of Discharge	Number
Sex	Patient Gender	1 = Male, 2 = Female, 9 = Unknown
Zip Code	Patient Residential Zip Code	5 Digit Number
County	Patient Residential County	1=ALLEGANY 2=ANNE ARUNDEL 3=BALTIMORE 4=CALVERT 5=CAROLINE 6=CARROLL 7=CECIL 8=CHARLES 9=DORCHESTER 10=FREDERICK 11=GARRETT 12=HARFORD 13=HOWARD 14=KENT 15=MONTGOMERY 16=Prince Georges 17=Queen Annes 18=Saint Marys 19=SOMERSET 20=TALBOT 21=WASHINGTON 22=WICOMICO 23=WORCESTER 29=UNIDENTIFIED MARYLAND 30=BALTIMORE CITY 39=DELAWARE 49=PENNSYLVANIA 59=WEST VIRGINIA 69=VIRGINIA 79=DISTRICT OF COLUMBIA 89=FOREIGN 90=OTHER US TERRITORY 98=OTHER STATES 99=UNIDENTIFIED
County Name	County Name	Nominal
Primary Payer	Primary Payer	01 = MEDICARE, 02 = MEDICAID, 03 = TITLE V, 04 = BLUE CROSS, 05 = COMMERCIAL INSURANCE, 06 = OTHER GOVERNMENT PROGRAM, 07 = WORKMEN'S COMPENSATION, 08 = SELF PAY, 09 = CHARITY, 10 = OTHER, 11 = DONOR, 12 = HMO, 14 = MEDICAID HMO, 15 = MEDICARE HMO, 16 = BLUE CROSS-NATIONAL CAPITAL AREA, 17 = BLUE CROSS -OTHER STATE, 18=International Insurance, 99 = UNKNOWN
Discharge APR DRG	Discharge APR DRG version	3 digit code
Severity Level	Level of Severity from current admission	1 digit code
Product line	APR DRG Product Line	See PRODUCT LINE table below
Product category	APR DRG Product Category	Nominal Product line, however readmissions and PQIs trump the product line as their own product category
Same and next day transfer	Same day and next day transfer - not eligible for a readmission.	1= yes, 0=no
Interval Days	Interval Days = Next admission date - discharge date.	Number (Equation Difference)

<b>VARIABLE NAME</b>	<b>VARIABLE DESCRIPTION</b>	<b>VARIABLE VALUES</b>
Patient Died	Patient died - not eligible for a readmission.	1=yes, 0=no
Inpatient Charges + Observation Charges >23 hours	Total Inpatient Charges or Total Observation Charges for stays >23 hours. Used for calculating the \$ for readmissions and PQIs.	Dollar Value
Eligible for a Readmission - Denominator	Any discharge eligible for a readmission	1 = yes, 0 = no (i.e., patient died or was transferred; see exclusions for other types of discharges that are not eligible)
Readmission within 30 days	Readmissions within 30 days (with planned admissions excluded). This is similar to RRIP readmission flag	1 = yes, 0 = no, [" "] = not eligible to be a readmission
READMISSION DATA TYPE	Indicates if subsequent admission is Inpatient or Outpatient (Note: not restricted to 30 days).	IP= Inpatient, OP= Outpatient (OP indicates Observation stays greater than 23 hours)
Readmission was to the same hospital	Index Hospital View-Patient with an eligible Readmission at the same hospital as Index Admission	1=yes, [" "] =no or not applicable
Readmission was to the different hospital	Index Hospital View - Patient with an eligible Readmission at a different hospital from Index Admission	1=yes, [" "] =no or not applicable
Other Exclusions	Discharges in not eligible for readmissions based on other criteria	1= yes, 0=no
Oncology DRG	Excluded due to Oncology DRG	1=yes, [" "] =no or not applicable
Actual PAU Readmission case	Indicates if current case is a readmission (IP and obs>-24 hours)	1=yes, [" "] =no or not applicable
Actual PAU Readmission Charges	Charges associated with a PAU readmission (IP and obs>-24 hours)	dollar value
Index Admission was to the same hospital	Admission prior to readmission (index) was at same hospital.	1=yes, [" "] =no or not applicable
Index Admission was to the different hospital	Admission prior to readmission (index) was at different hospital.	1=yes, [" "] =no or not applicable
Actual PAU PQI case	No longer used for analysis as of RY2021. Indicates an admission is a PQI (de-duplicated from readmissions)	1=yes, [" "] =no or not applicable
Actual PAU PQI Cost	No longer used for analysis as of RY2021. Charges associated with a PAU PQI	dollar value
Total PAU	Indicates whether a admission was either PAU readmission or PAU PQI	1=yes, [" "] =no or not applicable
Total PAU Cost	Charges associated with either PAU readmission or PAU PQI	dollar value
Eligible to have a PQI	Any discharge eligible for a PQI	1 = yes, 0 = no (discharges not eligible are those < 18 years of age or missing data)
PQI Present	No longer used for analysis as of RY2021. Flag indicates whether PQI present, regardless of whether PQI was also	1 = yes, 0 = no, [" "] = not eligible to have a PQI

VARIABLE NAME	VARIABLE DESCRIPTION	VARIABLE VALUES
	readmission	
PQI 01 Short-term Diabetes Complications (numerator)	Case had principal diagnosis of short-term diabetes complications (numerator of PQI logic)	1=yes, [" "] = No or not eligible
PQI 02 Perforated Appendix (numerator)	<i>AHRQ retiring in CY2019, will not be present in future data.</i> Case had a perforated appendix (numerator of PQI logic)	1=yes, [" "] = No or not eligible
PQI 03 Long-term Diabetes Complications (numerator)	Case had principal diagnosis of long-term diabetes complications (numerator of PQI logic)	1=yes, [" "] = No or not eligible
PQI 05 Chronic Obstructive Pulmonary Disease Older adults (numerator)	Case had principal diagnosis of chronic obstructive pulmonary disease or asthma in older adults (numerator)	1=yes, [" "] = No or not eligible
PQI 07 Hypertension (numerator)	Case had principal diagnosis of hypertension (numerator)	1=yes, [" "] = No or not eligible
PQI 08 Heart Failure (numerator)	Case had principal diagnosis of heart failure (numerator)	1=yes, [" "] = No or not eligible
PQI 10 Dehydration (numerator)	<i>AHRQ retiring in CY2019, will not be present in future data.</i> Case had principal diagnosis of dehydration (numerator).	1=yes, [" "] = No or not eligible
PQI 11 Community-Acquired Pneumonia (numerator)	Case had principal diagnosis of Community-Acquired Pneumonia (numerator)	1=yes, [" "] = No or not eligible
PQI 12 Urinary Tract Infection (numerator)	Case had principal diagnosis of urinary tract infection (numerator)	1=yes, [" "] = No or not eligible
PQI 14 Uncontrolled Diabetes (numerator)	Case had principal diagnosis of uncontrolled diabetes (numerator)	1=yes, [" "] = No or not eligible
PQI 15 Asthma Younger Adults (numerator)	Case had principal diagnosis of adult asthma (numerator)	1=yes, [" "] = No or not eligible
PQI 16 Lower Extremity Amputation among Patients with Diabetes (numerator)	Case had lower extremity amputation with diabetes (numerator)	1=yes, [" "] = No or not eligible
PQI 90 Prevention Quality Overall Composite	Case had at least 1 PQI flag (any PQIs among 1,3,5,7,8,10,11,12,14-16)	1=yes, [" "] = No or not eligible
PQI 91 Prevention Quality Acute Composite	Case had at least 1 PQI flag for acute conditions (any PQIs 10,11,12)	1=yes, [" "] = No or not eligible
PQI 92 Prevention	Case had at least 1 PQI flag for chronic conditions (any PQI	1=yes, [" "] = No or not eligible

VARIABLE NAME	VARIABLE DESCRIPTION	VARIABLE VALUES
Quality Chronic Composite	among 1,3,5,7,8,14-16)	
PQI 93 Prevention Quality Diabetes Composite	Case had at least 1 PQI flag for diabetes (any PQI among 1,3,14,16)	1=yes, [" "] = No or not eligible
PQI 09 Low Birth Weight Rate (Numerator)	<i>AHRQ retiring in CY2019, will not be present in future data.</i> Newborn weighed <2500 grams	1=yes, [" "] = No or not eligible
PDI 14 Asthma Admission Rate (Numerator)	Case had principal diagnosis of asthma (numerator)	1=yes, [" "] = No or not eligible
PDI 15 Diabetes Short-Term Complications Admission Rate (Numerator)	Case had principal diagnosis of short-term diabetes complications (numerator)	1=yes, [" "] = No or not eligible
PDI 16 Gastroenteritis Admission Rate (Numerator)	Case had principal diagnosis of gastroenteritis or principal diagnosis of dehydration with secondary diagnosis of gastroenteritis (numerator)	1=yes, [" "] = No or not eligible
PDI 17 Perforated Appendix Admission Rate (Numerator)	<i>AHRQ retiring in CY2019, will not be present in future data.</i> Case had a perforated appendix (numerator)	1=yes, [" "] = No or not eligible
PDI 18 Urinary Tract Infection Admission Rate (Numerator)	Case had principal diagnosis of urinary tract infection (numerator)	1=yes, [" "] = No or not eligible
ICD version flag	ICD Version used in Data Set	
Previous Hospital ID		
Previous Hospital Name		
non-PQI Readmission	Readmission within 30 days that are not also a PQI	1=yes, [" "] = No or not eligible